Wisker, George

MRG Middle form

From:

Spooner, Robert E. [Robert.Spooner@nrgenergy.com]

Sent:

Wednesday, March 19, 2008 8:38 AM

To:

Wisker, George

Subject: River Core Sampling Summary

George, here is the quick summary. I'll have the real report up to you probably early next week. We got a little stalled with our Tidewater Mucket issue, but we have that under control. I'll have the COP to Carlos early next week too. We're thinking a May dredge start anyway, so hopefully that will give plenty of time for Carlos to issue the COP.

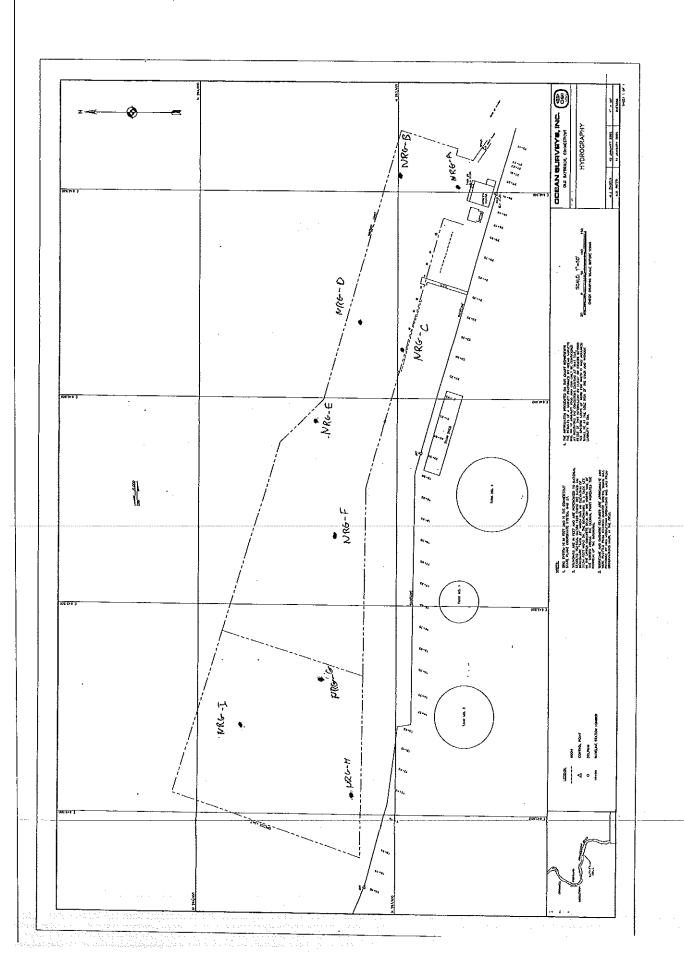
Let me know if you have any questions.

Bob

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|----------------------|--------|------------|------------|---------|--------|--------|---------|--------------|-------------------------|
| | l pr | LINUTO | l on nuc l | I/C DEC | POSDEC | A | Δ | | |
| CONSTITUENT | P/F | UNITS | GB PINC | I/C DEC | Respec | | | | |
| Metals · | T-4-1 | (ma m/l/m) | NE | 10000 | 340 | <0.36 | <0.38 | <0.34 | <0.36 |
| Silver | Total | (mg/kg)_ | | 10000 | 10 | <0.07 | 1 | 1.3 | 1.8 |
| Arsenic | Total | (mg/kg) | NE. | | | 19 | 18.1 | 14.7 | 18 |
| Barium | Total | (mg/kg) | NE | 140000 | 4700 | <0.29 | <0.3 | . <0.27 | <0.29 |
| Beryllium | Total | (mg/kg) | NE | 4000 | 34 | <0.29 | <0.38 | <0.34 | <0.36 |
| Cadmium | Total | (mg/kg) | NE. | 1000 | | 9.98 | 10.4 | 9.72 | 9.57 |
| Chromium | Total | (mg/kg) | NE | 100 | 100 | | 4.92 | 3,81 | 4.0′ |
| Copper | Total | (mg/kg) | NE | 010 | | 5.67 | <0,07 | <0.07 | 4. ن <0.ن |
| Mercury | Total | (mg/kg) | NE | 610 | 20 | <0.06 | | | 13.6 |
| Nickel . | ·Total | (mg/kg) | NE | 7500 | 1400 | 12.6 | 13.6 | 11.7 | |
| Lead | Total | (mg/kg) | NE | 1000 | 500 | 6.83 | 7.19 | 6.37 <3.4 | 6.35 <3.6 |
| Antimony | Total_ | (mg/kg) | NE | | 0.40 | <3.6 | <3.8 | | |
| Selenium | Total | (mg/kg) | NE | 10000 | 340 | <1.8 | <1.9 | <1.7 | <1.8 |
| Thallium | Total | _(mg/kg)_ | NE | 160 | 5.4 | <3.6 | <3.8 | <3.4 | <3.6 |
| Trivalent Chromium | Total | (mg/kg) | NE | | | 9.98 | 10.4 | 9.72 | 9.57 |
| Vanadium | Total | (mg/kg) | NE | 14000 | 470 | 9.62 | 9.21 | 8.19 | 8.58 |
| Zinc | 7 | | | | | 48.5 | 197 | 41.8 | 50.9 |
| Metals (SPLP) | ,, | | | | | | | | 0.01 |
| Silver | SPLP. | (mg/l) | 0.36 | NE | NE | <0.01 | <0.01 | <0.01 | <0.01 |
| Arsenic | SPLP | (mg/l) | 0.5 | NE | NE | <0.004 | <0.004. | <0.004 | <0.00 |
| Barium | SPLP | (mg/l) · | 10 | NE | NE | 0.01 | 0.01 | <0.01 | 0.02 |
| Beryllium | SPLP | (mg/l) | 0.04 | NE | NE | <0.001 | <0.001 | <0.001 | <0.00 |
| Cadmium | SPLP. | (mg/l) | 0.05 | NE | NE | <0.005 | <0.005 | <0.005 | <0.00 |
| Chromium | SPLP | (mg/l) | 0.5 | NE | NE | <0.01 | <0.01 | <0.01 | <0.01 |
| Copper | SPLP | (mg/l) | | NE | NE | <0.01 | <0.01 | <0.01 | <0.01 |
| Nickel | SPLP | (mg/l) | 1 | NE | NE | <0.01 | <0.01 | <0.01 | <0.01 |
| Lead . | SPLP | (mg/l) | 0.15 | NE | NE | <0.015 | <0.015 | <0.015 | <0.01 |
| Antimony | SPLP | (mg/l) | | NÉ | NE | <0.005 | <0.005 | <0.005 | 0.007 |
| Selenium | SPLP | (mg/l) | 0.5 | NE | NE | <0.02 | <0.02 | <0.02 | <0.02 |
| Thallium | SPLP | (mg/l) | 0.05 | NE | NE | 0.008 | 0.007 | <0,005 | 0.008 |
| Vanadium | SPLP. | (mg/l) | | NE | NE | <0.01 | <0.01 | <0.01 | <0.01 |
| Zinc | SPLP | (mg/l) | | NE | NE | 0.02 | 0.01 | 0.02 | 0.0 |
| | • | | | | | | | • | ٠. |
| Chromium, hexavalent | | mg/kg | | | | <0.45 | <0.43 | <0.44 | <0.43 |
| Total Cyanide | | mg/kg | | | | <0.56 | <0.54 | <0.55 | <0.54 |

River Core Sample Analysis Summary

| | , | | | | | - | - | - | | Sample ID | | | | |
|-----------------------|-----------|---------|----------------|-------------|----------|--------|----------|--------|----------------|---------------|--------|--------|-------------|--------------|
| CONSTITUENT | P/F | CHINITS | GB PMC | I/C DEC | Record | ∢ | a | ပ | ۵ | ш | Ŀ | ပ | Ŧ | - |
| Metals | | | | 222 | 2 | | | | | | | | | |
| Silver | Total | (mg/kg) | NE | 10000 | 340 | <0.36 | <0.38 | 0.34 | <0.36 | <0.33 | <0.38 | <0.35 | <0.46 | <0 38 V |
| Arsenic | Total | (mg/kg) | IJN. | 10 | 10 | <0.0> | 1 | 1.3 | 1.8 | 1.4 | 1.2 | 0.9 | <0.0> | , |
| Barium | Total | (mg/kg) | W Z | 140000 | 4700 | 19 | 18.1 | 14.7 | 18 | 17.3 | 15.5 | 18.2 | 27.2 | 14.3 |
| Beryllium | Total | (mg/kg) | Ä | | | <0.29 | <0.3 | <0.27 | <0.29 | <0.26 | <0.3 | <0.28 | <0.37 | <0.31 |
| Cadmium | Total | (mg/kg) | N. | 1000 | 34 | <0.36 | <0.38 | <0.34 | <0.36 | <0.33 | <0.38 | <0.35 | <0.46 | <0.38 |
| Chromium | Total | (mg/kg) | NE NE | 100 | 190 | 96.6 | 10.4 | 9.72 | 9.57 | 9.72 | 8.53 | 9.44 | 14.4 | 8,1 |
| Copper | Total | (mg/kg) | NE | | | 5.67 | 4.92 | 3.81 | 4.08 | 4.76 | 3.56 | 4.49 | 10.4 | 3.68 |
| Mercury | Total | (mg/kg) | NE NE | 610 | 50 | .<0.06 | <0.07 | <0.07 | <0.08 | <0.07 | <0.0> | <0.07 | <0.09 | €0.08 |
| Nickel | Total | (mg/kg) | NE | 7500 | 1400 | 12.6 | 13.6 | 11.7 | 13.6 | 13.1 | 12.4 | 13.2 | 13.4 | 11.5 |
| Lead | Total | (mg/kg) | ШN | 1000 | 500 | 6.83 | 7.19 | 6.37 | 6.35 | 6.5 | 6.03 | 6.08 | 2.8 | 5.2 |
| Antimony | Totai | (mg/kg) | NE NE | | | <3.6 | <3.8 | <3.4 | 3.6 | 3.3 | 3.8 | 3.5 | <4.6 | 3.8 |
| Selenium | Total | (mg/kg) | Ä | 10000 | 340 | <1.8 | <1.9 | <1.7 | ×1.8 | 91.5 | 41.9 | <1.7 | 22.3 | 6: V |
| Thallium | Total | (mg/kg) | 빌 | 160 | 5.4 | <3.6 | <3.8 | 43.4 | <3.6 | 3.3 | 3.8 | <3.5 | 4.6 | 3.8 |
| Trivalent Chromium | Total | (mg/kg) | W Z | | | 9.98 | 10.4 | 9.72 | 9.57 | 9.72 | 8.53 | 9,44 | 14.4 | 8.1 |
| Vanadium | Total | (mg/kg) | 岁 | 14000 | 470 | 9.62 | 9.21 | 8.19 | 8.58 | 8.5 | 8.88 | 8.87 | 18.3 | 8.12 |
| ZIUC | | | | | | 48.5 | 197 | 41.8 | 50.9 | 47.5 | 44.4 | 48.7 | 31.6 | 38.1 |
| Metals (SPLP) | | | | | | | | | | | | | | |
| Silver | SPLP | (mg/l) | 0.36 | NE | 빌 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Arsenic | SPLP | (mg/l) | 0.5 | NE | Ä | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.004 | <0.00 |
| Barium | SPLP | (mg/l) | 10 | IJ. | NE | 0.01 | 0.01 | <0.01 | 0.02 | \$0.04 | <0.01 | <0.01 | \$0.04 | <0.01 |
| Beryllium | SPLP | (mg/l) | 0.04 | 뿐 | iii Z | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 |
| Cadmium | SPLP | (mg/l) | 0.05 | 빌 | NE NE | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| Chromium | SPLP | (mg/l) | 0.5 | 쀨 | Ä | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Copper | SPLP P | (mg/t) | | ¥ | 핃 | Ž0.04 | <0.01 | <0.01 | 40.04 40.04 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Mickel | 4 | (mg/l) | - ¹ | <u>ال</u> ا | 빌 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | €0.01 | 60.01 |
| Lead A atime | 7 6 | (mg/l) | 0.15 | | Ш! 2 | <0.015 | <0.015 | <0.015 | <0.015 | <0.015 | <0.015 | <0.015 | <0.015 | <0.015 |
| Anumony | ٦ ا | (mg/l) | , | J. | 빌 | <0.005 | <0.005 | <0.005 | 0.007 | <0.005 | <0.005 | <0.005 | <0.005 | 0.007 |
| Selemum | 7 2 | (mg/l) | 0.5 | IJZ. | IJN. | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 |
| I nalilum | SPLP P | (mg/l) | 0.05 | 빙 | 빌 | 0.008 | 0.007 | <0.005 | 0.008 | <0.005 | 0.005 | 0.007 | <0.005 | 0.005 |
| Vanadium | SPLP | (mg/l) | | 빙 | IJN. | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 40.01 | <0.01 |
| ZIUC | SPLP | (mg/l) | | 빙 | 빙 | 0.02 | 0.01 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | <0.01 | 0.02 |
| | | | | | | | | | | | | | | |
| Chromium, hexavalent | Ę | mg/kg | | | 1 | <0.45 | <0.43 | <0.44 | <0.43 | 44.0 ≻ | <0.45 | <0.43 | .<0.51 | 40.44 |
| Total Cyanide | | mg/kg | | | | <0.56 | <0.54 | <0.55 | 42.05 | <0.55 | <0.57 | <0.54 | 1 | <0.56 |
| I otal Organic Carbon | | mg/kg | | | | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | د <u>ا00</u> |





Desk Fir

Middletown Power, LLC P.O. Box 1001 Middletown, CT 06457

March 19, 2008

Mr. George Wisker Department of Environmental Protection 79 Elm Street Hartford, CT 06106-5127

Reference:

Testing Requirements for Upland Disposal. Letter from George Wisker, CT DEP to NRG Middletown Power LLC received January 28, 2008.

Dear Mr. Wisker,

Middletown Power, LLC (NRG) hereby submits the river core sample analysis in support of the requirements set forth in the referenced memo.

A summary sheet has been provided comparing the analysis results with the Direct Exposure Criteria for both Industrial/Commercial and Residential levels.

As you know, we intend to use a portion of these dredge spoils as clean cover to comply with Connecticut Transfer Act remedial actions here on site.

Should you have any questions concerning these reports, please contact Robert Spooner, at 860-638-3102.

Very truly yours,

NRG Middletown Power, LLC

David Carpenter Plant Manager

CC:

Gennady Shteynberg, CTDEP

Enclosures



STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION



April 10, 2008

Mr. Robert Spooner NRG -Middletown Station PO Box 1001 1866 River Road Middletown, CT 06457

Re: Disposal of Dredged Material at the Former Ash Disposal Area

Dear Mr. Spooner:

Based on the test results of the Connecticut River core samples, it is appropriate to consider using the dredge material as a cover at the former Ash Disposal Area after additional analyzes in accordance with the 2004 Conceptual Remedial Action Plan (RAP) for the subject site.

The analytical results of the 9 cores from the locations recommended by Mr. George Wisker of the DEP's Office of Long Island Sound Programs have shown that the concentrations of the constituents analyzed are well below the applicable criteria promulgated in the Connecticut Remediation Standard Regulations (RSRs).

Please note that, in accordance with the 2004 RAP, the dredged material must be further analyzed at a frequency of 1 sample per 500 cubic yards of sediments to show compliance with the Industrial/Commercial Direct Exposure Criteria and Pollutant Mobility Criteria for GB class groundwater prior to placement sediments in the remediation cells.

If you have questions or comments, please contact me at 860 424-3283.

Sincerely

Gene Shteynberg, Environmental Analyst 3

Remediation Division

Bureau of Water Protection and Land Reuse

Copy: David Carpenter, Middletown Station

Andrew Walker, Shaw Environmental, Inc., 88C Elm Street, Hopkinton, MA 01748

George Wisker, DEP, OLIS Carlos Esguerra, DEP, OLIS David McKeegan, WEED

Workspace/Centrdistr/Middletown/Middletown Station Ash Disposal Area Capping 0408